STABLES AND CORRALS

OCCUPANCY DESCRIPTION: These are usually designed for the care and housing of horses. The better qualities are highly decorative and include stone, brick, brick veneer or wood as the exterior finish. Interiors have finished stalls, with restrooms, lounge and quality finishes throughout. Good lighting and water service are also included.

The lower qualities use block or low-cost wood finishes on the walls and low-cost roof systems. Floors may be finished only in feed and tack rooms, with the remaining floor being dirt. Stalls are not finished, and there is no lighting or plumbing. The best estate types are the custom luxury thoroughbred breeding facilities, where cost is not an issue.

Stable barn loft costs include the floor structure and supports only; height adjustments must usually be made. **INCLUDED IN COSTS:** Architects' fees and contractors' overhead and profit. The size of the stables and the needs of the owners influence the facilities included in the stable. Commonly the following areas can be found: stalls or boxes, feed, tack, manure bunkers and lavatory accommodations. The better qualities may also include a sick box, washing and

qualities may also include a sick box, washing and cleaning room, a sitting room/lounge for grooms and office facilities.

NOT INCLUDED IN COSTS: Heating and special

STABLES

equipment.

| CLASS | TYPE | COST/ SQ. FT. | EXTERIOR WALLS | INTERIOR FINISH | LIGHTING & PLUMBING |
|---------------|----------|------------------|---|--|---|
| | Good | \$33.70 | Good brick or block, some windows and ornamentation | Fin. stalls, good floors, concrete in feed/tack rm., gd. qual. thruout | Good lighting and water outlets, restroom |
| С | Average | 23.95 | Block, very plain, doors on stalls | Plywood wainscot in stalls, floors in feed and tack rooms | Adequate lighting and water outlets |
| | Low cost | 17.05 | Concrete block, open stalls | Rough stalls, dirt | None |
| | Good | 29.30 | Brick veneer, best siding, some windows, ornamentation | T&G stalls, finished tack and feed rooms, floors | Good lighting and water outlets, restroom |
| D | Average | 18.95 | Stucco or wood siding, little trim, good roofing | Wainscot in stalls, concrete floors in tack and feed rooms | Adequate lighting and water outlets |
| | Low cost | 12.30 | Boards on post and beam | Unfinished, dirt floors, open stalls | None |
| | Good | 26.70 | Pole frame, good metal panels, finished inside, some trim | Finished stalls, good floors, good quality throughout | Good lighting and water outlets, restroom |
| DPOLE | Average | 17.30 | Pole frame, metal siding, no trim, doors on stalls | Wood wainscot in stalls, floors in feed and tack rooms | Adequate lighting and water outlets |
| | Low cost | 11.20 | Metal on poles, open stalls | Rough stalls, dirt floor | None |
| | Cheap | 8.90 | Metal or plywood on low-cost pole, shed or low gable | Rough stalls, dirt floor, no tackroom, minimum hobby stable | None |
| D ноор | Average | 6.40 | Wood post, knee wall, pipe hoop frame, fabric cover, curtains | Rough stalls, dirt floor | Minimum electrical, adequate water |
| ARCH | Low cost | 4.30 | Wood post, pipe hoop, fabric cover, open side walls and ends | Unfinished, dirt floors, open pipe stalls | None |
| | Good | 27.95 | Good steel panels, finished inside, some trim | Finished stalls, good floors, good quality throughout | Good lighting and water outlets, restroom |
| S | Average | 18.20 | Steel siding, no trim, doors on stalls | Plywood wainscot in stalls, floors in feed and tack rooms | Adequate lighting and water outlets |
| | Low cost | 11.90 | Galvanized steel, open stalls | Rough stalls, dirt floor | None |

HIGH-VALUE (ESTATE) STABLES

| | | | | , = , • = = • | |
|-------|-----------|----------|---|----------------------------------|--------------------------------|
| | Excellent | \$141.20 | Face brick, cut stone, custom arches, | Custom stalls, imported woods, | Extensive fixtures and custom |
| | | | cupolas, heavy roof, dormers | best broodmare or yearling barns | hardware throughout |
| | Good | 98.50 | Face brick, stone trim, slate or tile | Fine custom stalls, finishes, | High-quality fixtures, fine |
| | | | gambrel roof, some custom sash | besttraining or stallion barns | hardware, horse baths |
| • | Average | 68.80 | Good brick, stone trim, skylights, | Good finished stalls, good | Some special custom fixtures, |
| | | | shakes or metal on good structure | thoroughbred barn, some extras | electrical and plumbing |
| | Low cost | 48.10 | Decorative block, small estate type, | Finished stalls, lounge and | High-level electrical service, |
| | | | insulated, some distinctive trim | restrooms, quality finishes | showers and dressing room |
| | Excellent | 139.45 | Face brick or stone ven., heavy roof, | Custom stalls, imported woods, | Extensive fixtures and custom |
| | | | custom dormers, arches, cupolas | best broodmare or yearling barns | hardware throughout |
| | Good | 96.10 | Face brick veneer, stone trim, slate or | Fine custom stalls, finishes, | High-quality fixtures, fine |
| Ь | | | tile on gambrel, some custom sash | besttraining or stallion barns | hardware, horse baths |
| | Average | 66.25 | Fine sidings, good veneer, skylights, | Good finished stalls, good | Some special custom fixtures, |
| | | | good shakes or metal | thoroughbred barn, some extras | electrical and plumbing |
| | Low cost | 45.75 | Good sidings or masonry veneer, | Finished stalls, lounge and | High-level electrical service, |
| | | | insulated, small estate type, good trim | restrooms, good finishes | showers and dressing room |
| DPOLE | Low cost | 41.60 | Small estate type, insulated, some | Finished stalls, lounge and | High-level electrical service, |
| DPOLE | | | distinctive trim, complex roof | restrooms, good finishes | showers and dressing room |
| S | Low cost | 43.60 | Insulated, small estate type, some | Finished stalls, lounge and | High-level electrical service, |
| | | | distinctive trim, complex roof | restrooms, good finishes | showers and dressing room |
| | | | | - | |

STABLE HAYLOFTS

| | Good | \$9.05 | Not included | Heavy timber, good T&G or plank | Not included |
|-----|----------|--------|--------------|---------------------------------|--------------|
| CDS | Average | 5.85 | Not included | Adequate support, plank floor | Not included |
| | Low cost | 3.80 | Not included | Minimum support, light floor | Not included |

STABLES AND CORRALS

REFINEMENTS: On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

| ADJUSTMENTS | Cost per Lin. Ft. Except as Indicated | | | | |
|---|---------------------------------------|----------|--|--|--|
| Horse corrals, vinyl, 5" x 5" posts, three 2" x 6" rails | \$ 10.50 - | \$ 12.50 | | | |
| Horse corrals, 6" x 6" posts, concreted, five 2" x 6" rails, nailed, painted | 10.75 – | 11.35 | | | |
| Horse corrals, polymer grid, 5' – 2" x 6" top rail | 8.55 – | 9.10 | | | |
| 8' gate, each (vinyl, add 100% – 150%) | 100.00 - | 170.00 | | | |
| Electrified fence strands, each strand (plus \$185 per charger) | .32 – | .42 | | | |
| Horse walkers, four horses, each (plus \$850 for six-horse walker) | 2,350.00 - | 3,000.00 | | | |
| Portable pipe corrals (plus \$40 for 4' gate, for larger gates, see below) | 8.00 – | 16.25 | | | |
| Stock corrals, 6" x 6" posts, four split rails, unfinished | 6.15 — | 6.50 | | | |
| Stock corrals, 6" x 6" posts, four 2" x 6" rails, nailed, unfinished | 8.35 – | 8.80 | | | |
| Finished, painted paddocks, add | 1.50 – | 2.10 | | | |
| Stock corrals, 4" pipe, cable rails | 8.00 – | 9.10 | | | |
| Stock corrals, 4" pipe, 2" pipe rails (galvanized rub panels, add \$1.30 – \$1.40) | 10.25 – | 11.35 | | | |
| 8' gate, each (add \$30 – \$45 for each additional 4') | 90.00 - | 140.00 | | | |
| Feed racks: \$12.50 – \$17.00; steel feeders, each: bale, \$200; bunk, \$150; bunk w/hayra | ck, \$275; paddock, \$100 | | | | |
| Water troughs: steel, \$16.30 – \$24.75; concrete, \$24.75 – \$36.50; drinking bowls, each, | \$85 – \$100 | | | | |
| Watering tanks, galvanized, each: 175 gallons, \$105; 300 gallons, \$160; 500 gallons, \$20 | 05 | | | | |
| Automatic waterer, each: \$120 – \$190; feed lots, \$400 – \$700 | | | | | |

9 HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees.

| Electric cable or baseboard | \$2.90 |
|----------------------------------|--------|
| Electric wall heaters (inc. FWA) | 1.25 |
| Forced air, ducted | 3.20 |
| heaters or furnace, vented | .95 |
| Hot water, baseboard/convector | 5.85 |
| radiant floor or ceiling | 6.05 |
| Space heaters, with fan | 1.60 |
| radiant | 1.80 |
| Steam | 4.94 |
| Wall or floor furnace | 5.05 |
| Package heating and cooling | 1.45 |
| Ventilation, blower and ducts | .95 |
| fans only | .40 |
| | |
| | |

3 HEIGHT REFINEMENTS

STORY HEIGHT MULTIPLIERS

Multiply base cost by following multiplier for any variation in average story height.

| Average Wall Height | Square Foot Multiplier |
|---------------------|------------------------|
| 7 | .943 |
| 8 | .963 |
| 9 | .981 |
| 10 | 1.000 |
| 11 | 1.019 |
| 12 | 1.038 |
| 13 | 1.058 |
| 14 | 1.077 |
| 16 | 1.115 |
| 18 | 1.154 |
| 20 | 1.192 |
| 22 | 1.231 |
| 24 | 1.269 |
| 28 | 1.346 |
| 32 | 1.423 |

| 4 | Average AVERAGE PERIMETER | | | | | | | Average | | | | | | | | |
|---|------------------------------|------|------|------|------|------|------|---------|------|------|------|------|------|------|------|------------------------------|
| | Floor Area, Sq. Ft./Story | 90 | 120 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | Floor Area, Sq. Ft./Story |
| | 500 | 1.24 | 1.39 | 1.54 | 1.79 | | | | | | | | | | | 500 |
| | 600 | 1.17 | 1.29 | 1.42 | 1.62 | 1.83 | | | | | | | | | | 600 |
| | 700 | | 1.22 | 1.33 | 1.50 | 1.68 | 1.86 | | | | | | | | | 700 |
| | 800 | | | 1.26 | 1.42 | 1.57 | 1.73 | 1.88 | | | | | | | | 800 |
| | 1,000 | | | 1.17 | 1.29 | 1.42 | 1.54 | 1.66 | 1.79 | | | | | | | 1,000 |
| | 2,000 | | | | 1.04 | 1.10 | 1.17 | 1.23 | 1.29 | 1.42 | 1.54 | 1.66 | 1.79 | | | 2,000 |
| | 4,000 | | | | | .95 | .98 | 1.01 | 1.04 | 1.10 | 1.17 | 1.23 | 1.29 | 1.35 | | 4,000 |
| | 6,000 | | | | | | .92 | .94 | .96 | 1.00 | 1.04 | 1.08 | 1.12 | 1.17 | 1.21 | 6,000 |
| | 8,000 | | | | | | | .90 | .92 | .95 | .98 | 1.01 | 1.04 | 1.07 | 1.10 | 8,000 |
| | 10,000 | | | | | | | | .89 | .92 | .94 | .97 | .99 | 1.02 | 1.04 | 10,000 |
| | 14,000 | | | | | | | | | .88 | .90 | .92 | .93 | .95 | .97 | 14,000 |
| | 18,000 | | | | | | | | | .86 | .88 | .89 | .91 | .92 | .93 | 18,000 |
| | 20,000 | | | | | | | | | .85 | .87 | .88 | .89 | .91 | .92 | 20,000 |

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

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ARENAS



GOODS CLASS S RIDING AREA

OCCUPANCY DESCRIPTION: These buildings include a large, simple clear-span riding or exercise area with some stabling facilities, which may be in a lean-to extension. A good show, exhibit or auction/sale facility includes spectator viewing and lounge commensurate with the quality level.



LOW CLASS D_{POLE} EXERCISE AREA INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit.

NOT INCLUDED IN COSTS: Heating, seating, lockers or food preparation or training equipment.

ARENAS

| ARENAS | | | | | | |
|---------------|-----------|------------------|--|---|---|--|
| CLASS | TYPE | COST/ SQ. FT. | EXTERIOR WALLS | INTERIOR FINISH | LIGHTING & PLUMBING | |
| | Excellent | \$40.20 | Steel frame, good block or concrete panels, good entrance | Finished stalls, lounge, viewing area, quality finishes | High-level electrical service, good restrooms and kitchen | |
| c | Good | 27.30 | Steel or wood frame, block or tilt-up, small entrance | Fin. stalls, good floors in snack bar, feed/tack rm., good qual. throughout | | |
| | Average | 18.60 | Block or tilt-up, very plain, some interior finish | Unfinished arena area, floors in feed/tack and washrooms | Adequate lighting and water service | |
| | Low cost | 12.60 | Concrete block, some wainscot | Minimum facility, some flooring | Minimum services | |
| | Excellent | 36.20 | Glulam or steel frame, good veneer, siding, good entrance | Finished stalls, lounge, viewing area, quality finishes | High-level electrical service, good restrooms and kitchen | |
| D | Good | 21.35 | Good siding or stucco on wood or steel frame, small entrance | Fin. stalls, good floors in snack bar, feed/tack rm., good qual. throughout | Good lighting and water outlets, restrooms | |
| | Average | 12.60 | Siding or stucco on wood frame, some interior finish | Unfinished arena area, floors in feed/tack and washrooms | Adequate lighting and water service | |
| | Low cost | 7.40 | Vertical boards or plywood on box frame, some wainscot | Dirt arena floor, some stalls, few finishes, some flooring | Minimum lighting and water service | |
| | Good | 18.55 | Good metal panels, insulated pole frame, small entrance | Fin. stalls, good floors in snack bar, feed/tack rm., good quality throughout | Good lighting and water outlets, restrooms | |
| DPOLE | Average | 10.90 | Good metal on pole frame, some interior finish | Unfinished arena area, floors in feed/tack and washrooms | Adequate lighting and water service | |
| | Low cost | 6.40 | Pole frame, metal siding,some wainscot | Dirt arena floor, some stalls, few finishes, some flooring | Minimum lighting and water service | |
| | Cheap | 5.85 | Pole frame, metal siding | Unfinished, dirt floor, exer. only | Minimum electrical only | |
| DHOOP ARCH | Cheap | 5.15 | Wood post, wide hoop frame, fabric cover, end walls, curtain doors | Unfinished, dirt floor, exercise arena, corral pipe fence | Minimum electrical only | |
| | Excellent | 34.50 | Steel frame, good enameled siding, masonry trim, good entrance | Finished stalls, lounge, viewingarea, quality finishes | High-level electrical service, good restrooms and kitchen | |
| | Good | 20.70 | Insulated sandwich panels, steel frame, small entrance | Fin. stalls, good floors in snack bar, feed/tack rm., good qual. throughout | Good lighting and water outlets, restrooms | |
| S | Average | 12.40 | Good metal panels and roof, some interior finish | Unfinished arena area, floors in feed/tack and washrooms | Adequate lighting and water service | |
| | Low cost | 7.40 | Steel siding, some wainscot | Minimum facility, some flooring | Minimum services | |
| | Cheap | 6.50 | No walls, steel gable roof and truss on steel columns, wide span | Unfinished open arena, sand floor | Minimum electrical and water service | |

EQUESTRIAN LEAN-TOS

| | Average | \$11.70 | Side extension, board siding, windows and side doors | Stalls, tackroom, some flooring | Adequate lighting and water |
|-------|----------|---------|--|----------------------------------|-----------------------------|
| D | Low cost | 7.10 | Side extension, board siding | Some stalls and flooring | Minimum services |
| Ī | Cheap | 4.30 | Side extension, plywood/box frame | Unfinished, no doors, dirt floor | None |
| | Average | 10.65 | Side extension, good metal on pole frame, windows and side doors | Stalls, tackroom, some flooring | Adequate lighting and water |
| DPOLE | Low cost | 6.30 | Side extension, metal on pole frame | Some stalls and flooring | Minimum services |
| | Cheap | 3.70 | Side extension, metal on pole frame | Unfinished, no doors, dirt floor | None |
| | Average | 11.45 | Steel siding, side doors, windows | Stalls, tackroom, some flooring | Adequate lighting and water |
| S | Low cost | 7.05 | Side extension, steel frame/siding | Some stalls and flooring | Minimum services |
| | Cheap | 4.35 | Side extension, steel frame/siding | Unfinished, no doors, dirt floor | None |

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ARENAS

REFINEMENTS: On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

| 1 | ADJUSTMENTS | Cost per Lin. Ft. Except as Indicated | | | | | | |
|---|---|---------------------------------------|--|--|--|--|--|--|
| • | Stock corrals, 6" x 6" posts, four split rails, unfinished | \$ 6.15 – \$ 6.50 | | | | | | |
| | Stock corrals, 6" x 6" posts, four 2" x 6" rails, nailed, unfinished | 8.35 – 8.80 | | | | | | |
| | Stock corrals, 4" pipe, cable rails | 8.00 – 8.75 | | | | | | |
| | Stock corrals, 4" pipe, 2" pipe rails (galvanized rub panels, add \$1.30 – \$1.40) | 10.25 – 11.00 | | | | | | |
| | 8' gate, each (add \$30 – \$45 for each additional 4') | 90.00 – 140.00 | | | | | | |
| | Finished, painted paddocks, add | 1.50 – 2.10 | | | | | | |
| | Portable pipe corrals (plus \$40 per 4' gate, for larger gate, see above) | 8.00 – 16.25 | | | | | | |
| | Portable 20' work alley: \$1,15 – \$2,100; curved, \$1,350 – \$2,900; tub, \$1,400 – \$3,700 | | | | | | | |
| | Cattle squeeze, each (portable, \$2,100 – \$3,750 plus \$2,650 for scale) | 900.00 - 1,650.00 | | | | | | |
| | Head gate (portable, \$275 – \$975) | 550.00 - 600.00 | | | | | | |
| | Crossing guard | 1,500.00 - 3,100.00 | | | | | | |
| | Loading chute, 6" x 6" supports and posts, 2" ramp, 12' – 15' long, each | 800.00 - 1,100.00 | | | | | | |
| | Bleachers, portable, steel frame, metal, fiberglass or wood benches, erected | | | | | | | |
| | Cost per seat: up to 800 seats, \$34.25 – \$48.75; over 800 seats, \$30.50 – \$43.25 | | | | | | | |
| | Bleachers, permanent, wood frame and benches | | | | | | | |
| | Cost per seat: up to 1,000 seats, \$46.25 – \$62.25 | | | | | | | |
| | Bleachers, grandstand, open steel frame, metal, fiberglass or wood benches, school or fairground type | | | | | | | |
| | Cost per seat: up to 1,000 seats, \$72.75 – \$152.25 | | | | | | | |

2 HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees.

| and architects lees. | |
|----------------------------------|--------|
| Electric cable or baseboard | \$2.90 |
| Electric wall heaters (inc. FWA) | 1.25 |
| Forced air, ducted | 3.20 |
| heaters or furnace, vented | .95 |
| Hot water, baseboard/convector | 5.85 |
| radiant floor or ceiling | 6.05 |
| Space heaters, with fan | 1.60 |
| radiant | 1.80 |
| Steam | 5.05 |
| Wall or floor furnace | 1.45 |
| Package heating and cooling | 6.30 |
| Ventilation, blower and ducts | .95 |
| fans only | .40 |
| | |

3 HEIGHT REFINEMENTS STORY HEIGHT MULTIPLIERS

Multiply base cost by following multiplier for any variation in average story height.

| Average Wall Height | Square Foot Multiplier |
|---------------------|------------------------|
| 8 | .963 |
| 9 | .981 |
| 10 | 1.000 |
| 11 | 1.019 |
| 12 | 1.038 |
| 13 | 1.058 |
| 14 | 1.077 |
| 16 | 1.115 |
| 18 | 1.154 |
| 20 | 1.192 |
| 22 | 1.231 |
| 24 | 1.269 |
| 28 | 1.346 |
| 32 | 1.423 |
| 36 | 1.500 |

| Average Floor Area, Sq. Ft./Story | AVERAGE PERIMETER | | | | | | | | | | | | | | Average |
|---|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------|
| | 75 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | Floor Area Sq. Ft./Stor |
| 500 | 1.17 | 1.29 | 1.54 | 1.79 | | | | | | | | | | | 500 |
| 600 | 1.10 | 1.21 | 1.42 | 1.62 | 1.83 | | | | | | | | | | 600 |
| 700 | 1.06 | 1.15 | 1.33 | 1.50 | 1.68 | 1.86 | | | | | | | | | 700 |
| 800 | 1.03 | 1.10 | 1.26 | 1.42 | 1.57 | 1.73 | 1.88 | | | | | | | | 800 |
| 1,000 | .98 | 1.04 | 1.17 | 1.29 | 1.42 | 1.54 | 1.66 | 1.79 | | | | | | | 1,000 |
| 2,000 | .87 | .92 | .98 | 1.04 | 1.10 | 1.17 | 1.23 | 1.29 | 1.42 | 1.54 | 1.66 | 1.79 | | | 2,000 |
| 4,000 | | | .89 | .92 | .95 | .98 | 1.01 | 1.04 | 1.10 | 1.17 | 1.23 | 1.29 | 1.35 | | 4,000 |
| 6,000 | | | | .87 | 90 | .92 | .94 | .96 | 1.00 | 1.04 | 1.08 | 1.12 | 1.17 | 1.21 | 6,000 |
| 8,000 | | | | | | .88 | .90 | .92 | .95 | .98 | 1.01 | 1.04 | 1.07 | 1.10 | 8,000 |
| 10,000 | | | | | | .86 | .88 | .89 | .92 | .94 | .97 | .99 | 1.02 | 1.04 | 10,000 |
| 14,000 | | | | | | | | .87 | .88 | .90 | .92 | .93 | .95 | .97 | 14,000 |
| 18,000 | | | | | | | | | .86 | .88 | .89 | .91 | .92 | .93 | 18,000 |
| 25.000 | | | | | | | | | .83 | .84 | .85 | .86 | .87 | .88 | 25,000 |

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

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